KERAMIDA
ENVIRONMENTAL, INC.
ENGINEERING • CONSULTING • REMEDIATION
AIR • LAND • WATER • WASTE

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WASTE CHARACTERIZATION
FORMER ALLISON PLANT #10
700 NORTH OLIN AVENUE
INDIANAPOLIS, INDIANA
KERAMIDA PROJECT NO. 2829

Submitted To:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
Mr. David Berrey
Industrial Waste Section
100 North Senate Avenue, Shadeland Office
P.O. Box 6015
Indianapolis, Indiana 46206-6015

Submitted By:

KERAMIDA ENVIRONMENTAL, INC.
330 North College Avenue
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317/685-6600

December 6, 2000

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December 6, 2000

Mr. David Berrey
Indiana Department of Environmental Management
Industrial Waste Section
100 North Senate Avenue, Shadeland Office
P.O. Box 6015
Indianapolis, Indiana 46206-6015

IDEM Office of Land Quality - Filer
VRP Project Name: former Allison Pl #10
VRP#: 699004 File: 400
Description: -
Confidential? Y X
Deliberativ X

Re: Waste Characterization
Former Allison Plant #10
700 North Olin Avenue
Indianapolis, Indiana

Dear Mr. Berrey:

As per our recent discussions, KERAMIDA Environmental, Inc. (KERAMIDA) on behalf of Genuine Parts Company (Genuine Parts) is providing the following information in request of an agency position regarding whether investigation and/or remediation derived waste generated at the above-referenced site during a voluntary remediation project should be a listed hazardous waste. Provided below are a project background summary and the results of sampling conducted at the site for investigation and waste characterization purposes.

Project Background

The original building was constructed in 1956, and the floor space was doubled in 1970. In 1990, the western portion of the building was enclosed. Prior to that time, the area was a storage pad covered with a metal roof. A map illustrating salient site features is provided as Figure 1 in Attachment 1. BHT Corporation conducted the initial operations at the facility, they remanufactured carburetors and brakes. General Motors Corporation (GMC) purchased the facility in 1973 and used it as a warehouse for obsolete machines, tooling, and fixtures (Plant 10). Plant 10 was operated as a part of the GMC Speedway Division (Plant 3) until approximately 1984 when it was made a part of the Allison Gas Turbine Division. The subject site subsequently became the property of the Allison Engine Company (AEC) when GMC divested that division. AEC sold the facility to Associated Properties, Inc. in 1998. At that time, Genuine Parts was leasing the property to warehouse automotive parts. The subject site has been vacant since June of 2000.

KERAMIDA is currently working together with Ms. Andrea Robertson of IDEM's Voluntary Remediation Program (VRP) and Genuine Parts to investigate and remediate volatile organic compound (VOC) and metals impacted soil and groundwater at the Site (VRP #6991004). Investigation activities originated in 1993 when GMC conducted due diligence (Phase I and Phase II) assessments of the subject property. Investigation activities have continued since that time on behalf of GMC and more recently Genuine Parts. The project was entered into the VRP in 1999. Genuine Parts is conducting investigation/remedial activities based on their affiliation with the BHT Corporation. Genuine Parts has an access agreement with the current property owner Associated Properties, Inc. to conduct remedial activities. GMC is currently not involved with the VRP project.

Sample Results

Historically, investigation-derived wastes generated at the site have been classified as an F-waste (F001, F002, F003), presumably due to the presence of chlorinated volatile organic compounds detected in soil and groundwater samples. The F-listing of the investigation-derived waste began prior to Genuine Part's involvement in the project and may have been a conservative measure taken by GMC to classify the waste in the absence of a known or suspected source (e.g. degreaser). Chlorinated VOC contamination has been detected in soil and groundwater west and southeast of the former facility building. Maps illustrating soil and groundwater VOC concentrations detected on-site during previous investigations are provided as Figures 2 and 3 in Attachment 1. As is illustrated by the maps, the contamination does not appear to be related to any particular process-feature such as a degreaser or dip tank. According to the Phase I information Review Report prepared for the site by Parsons Engineering Science, Inc in April 1993, there were no reported releases of chlorinated VOC at the site. Although chlorinated solvents were likely historically used at the facility, there are no available records that would indicate what these solvents were or how they were used.

Toxicity Characteristic Leachate Procedure (TCLP) testing has been performed on materials excavated from the western portion of the site during exploratory trenching and remediation activities. The exploratory trenching was conducted to investigate anomalies detected during a recent geophysical survey. A map illustrating the observed anomalies is provided as Figure 4 in Attachment 1. The exploratory trenching did identify the presence of nearly disintegrated drums and debris. The drums appear to have contained discarded automotive parts and floor sweepings. There was no apparent indication that the drums once contained liquids or sludges from waste solvents. The TCLP tests have included VOC, semi-volatile organic compounds (SVOC), and the eight Resource Conservation and Recovery Act (RCRA) metals (Metals) analyses. Not all samples were analyzed for all of these parameters. Total VOC and Metals analyses were also run on certain samples. TCLP analytical results are summarized in Tables 1 and 2 provided in Attachment 2. Totals results are summarized in Tables 3 and 4 (Attachment 2). TCLP SVOC were analyzed for in one sample (A-3 COMP). No detectable concentrations of these compounds were identified in the sample. The geophysical map illustrates the locations of the anomalies where samples were collected (Figure 4, Attachment 1). Sample identifications provided in the tables reference the anomalies. For example, sample "A-3 COMP" is a composite sample collected from Anomaly 3 of the map. Laboratory reports are provided in Attachment 3.

None of the samples analyzed for TCLP organic constituents (VOC and SVOC) contained leachate levels of these compounds greater than their respective regulatory thresholds. In fact, the only detection was 0.064 milligrams per liter of trichloroethene in one sample (A-2/A-3). Some soils were determined to be a characteristically hazardous waste due to lead and/or cadmium content. These soils were located

adjacent to buried debris and deteriorated drums located in the extreme western portion of the Site south of the entrance and in the southwester corner of the Site.

Based on the information provided above, it is believed that investigation/remediation-derived waste generated at the Site should not be classified as F-listed hazardous waste. Waste characterization sampling that has been conducted does indicate that some of the materials are a characteristically hazardous waste attributable to Metals content. These materials will be managed as a hazardous waste. Additional waste will be generated in the future during planned investigation and remediation activities. TCLP sampling will be conducted on new waste streams to investigate the presence of a characteristically hazardous waste.

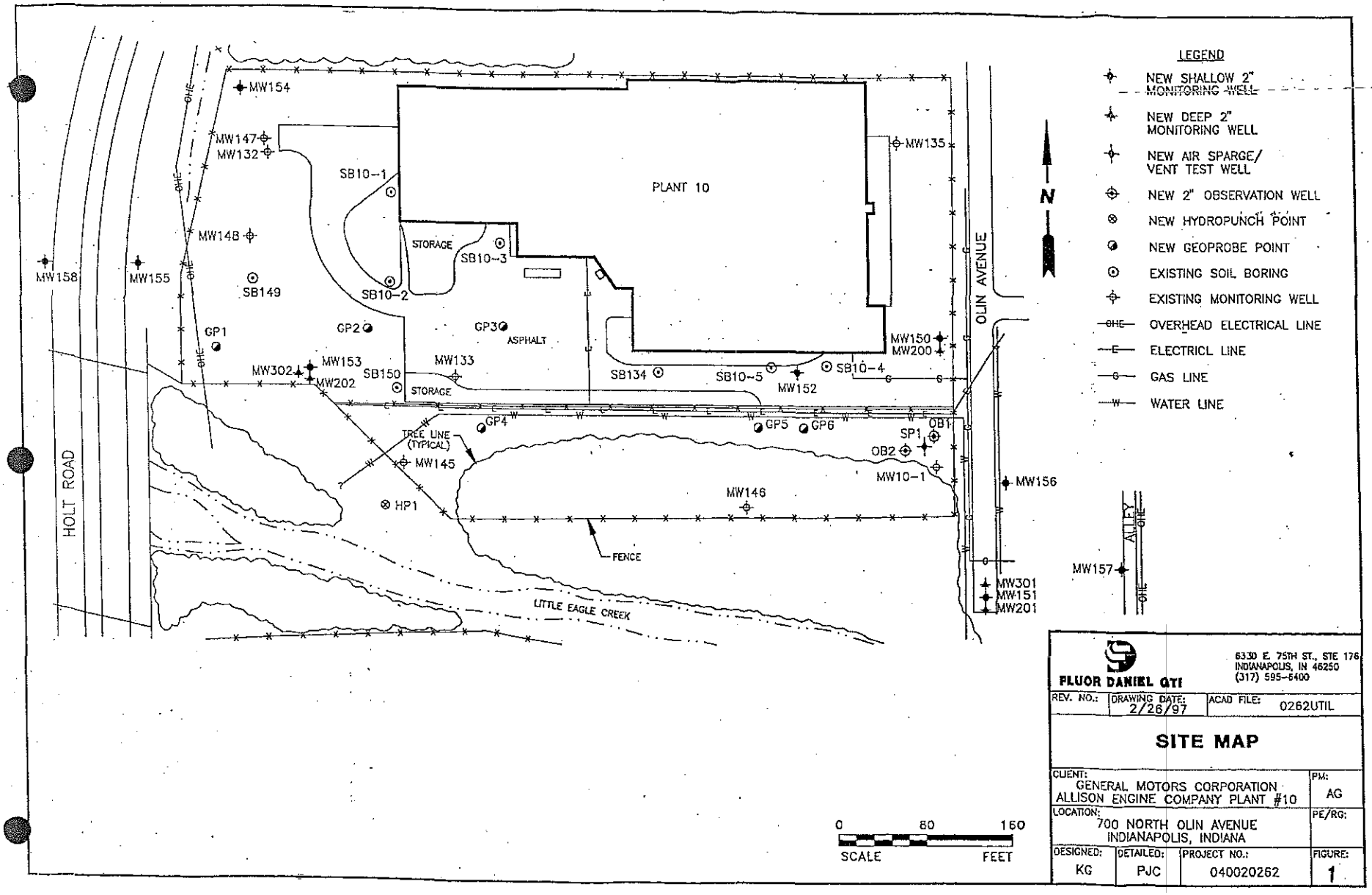
KERAMIDA respectfully requests that, upon review of this letter, the IDEM respond as to whether it concurs with the generator's position that investigation/remediation-derived wastes generated at the Site during the voluntary remediation project should not be a listed hazardous waste. Approximately 500 tons of soils and debris that do not exhibit a hazardous characteristic but do contain low levels of chlorinated VOC (per totals analysis) have been generated and await final classification prior to disposal. A 30-day extension of the 90-day accumulation period has been granted by the IDEM and, if determined to be a listed hazardous waste, these materials must be taken off-site in January of 2001. Therefore, an expeditious response is requested to allow time for disposal management of these materials. KERAMIDA appreciates your consideration of this matter. Should you have any questions regarding this correspondence, please contact me at your convenience.

Sincerely,
KERAMIDA Environmental, Inc.

Andrew A. Gremos, L.P.G., C.H.M.M.
Vice President of Site Investigation and Remediation Services

Enclosures

cc: Robert Lewis, Genuine Parts Company
Andrea Robertson, IDEM Voluntary Remediation Program



FLUOR DANIEL GTI

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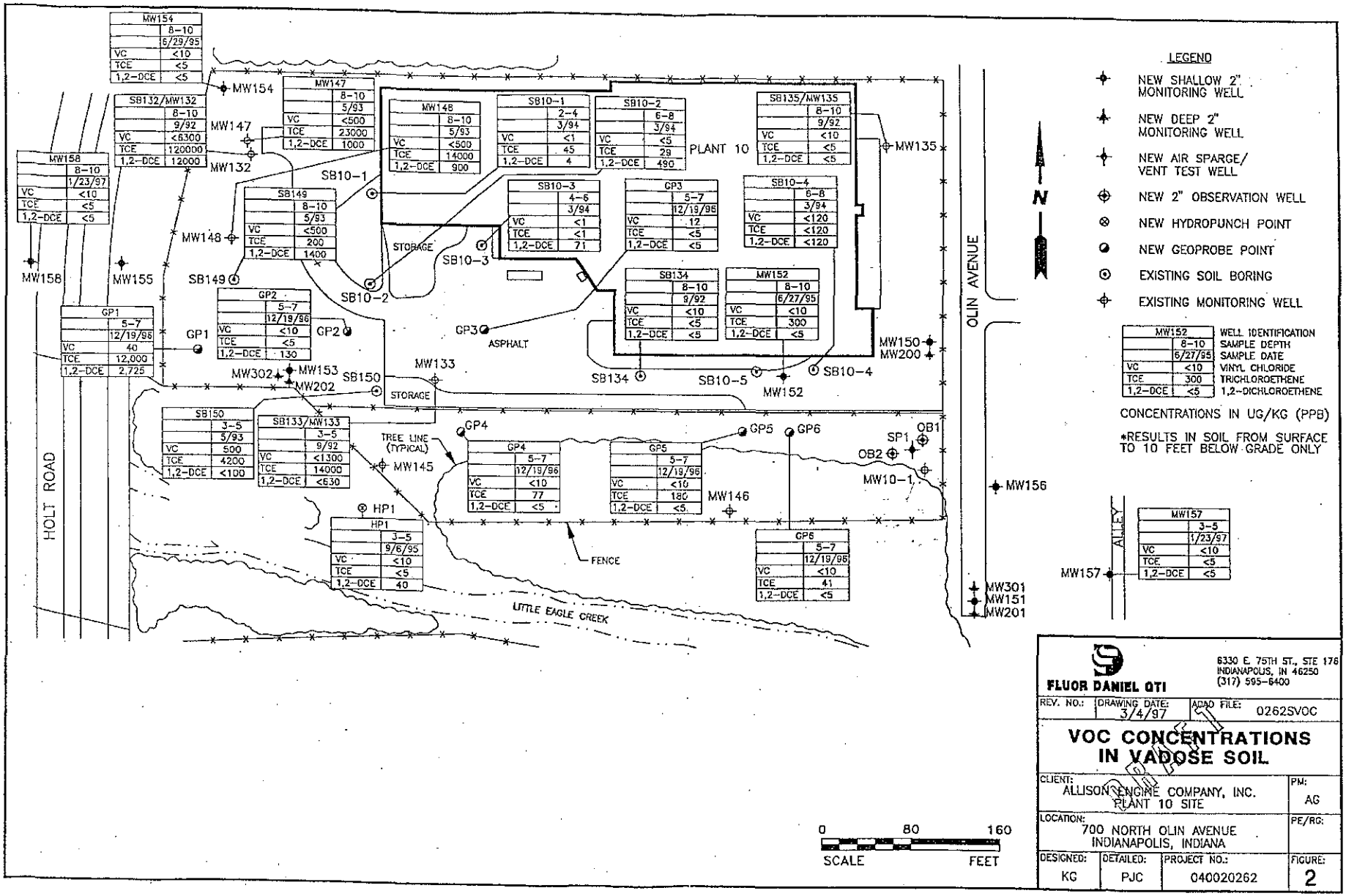
(317) 595-6400

REV. NO.:	DRAWING DATE: 2/26/97	ACAD FILE: 0262UTIL

SITE MAP

CLIENT: GENERAL MOTORS CORPORATION ALLISON ENGINE COMPANY PLANT #10			PM: AG
LOCATION: 700 NORTH OLIN AVENUE INDIANAPOLIS, INDIANA			PE/RG:
DESIGNED: KG	DETAILED: PJC	PROJECT NO.: 040020262	FIGURE: 1



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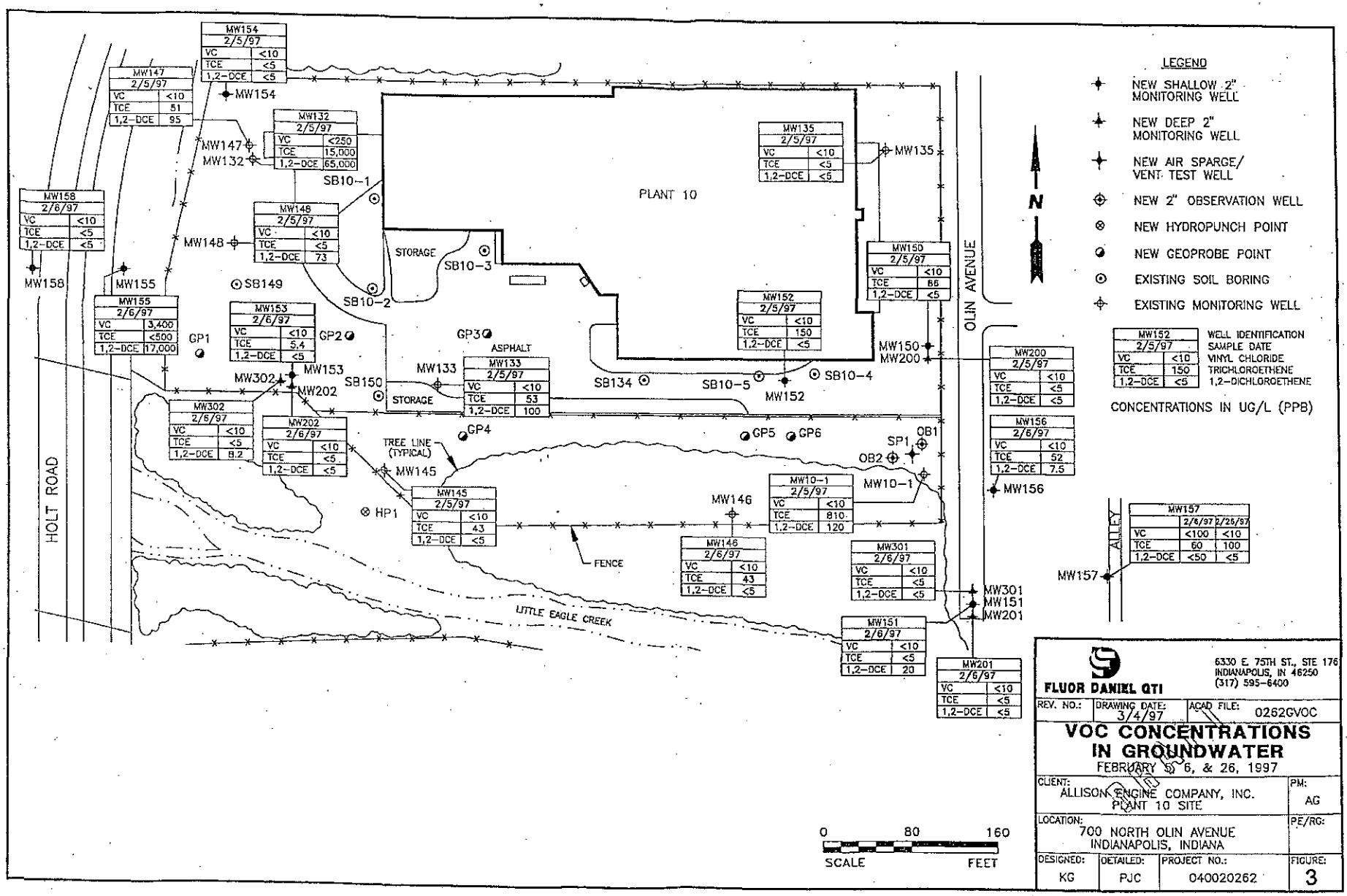
REV. NO.:	DRAWING DATE: 3/4/97	ACAD FILE: 0262SVOC

VOC CONCENTRATIONS IN VADOSE SOIL

CLIENT: ALLISON ENGINE COMPANY, INC. PLANT 10 SITE			PM: AG
LOCATION: 700 NORTH OLIN AVENUE INDIANAPOLIS, INDIANA			PE/RG:
DESIGNED: KG	DETAILED: PJC	PROJECT NO.: 040020262	FIGURE: 2



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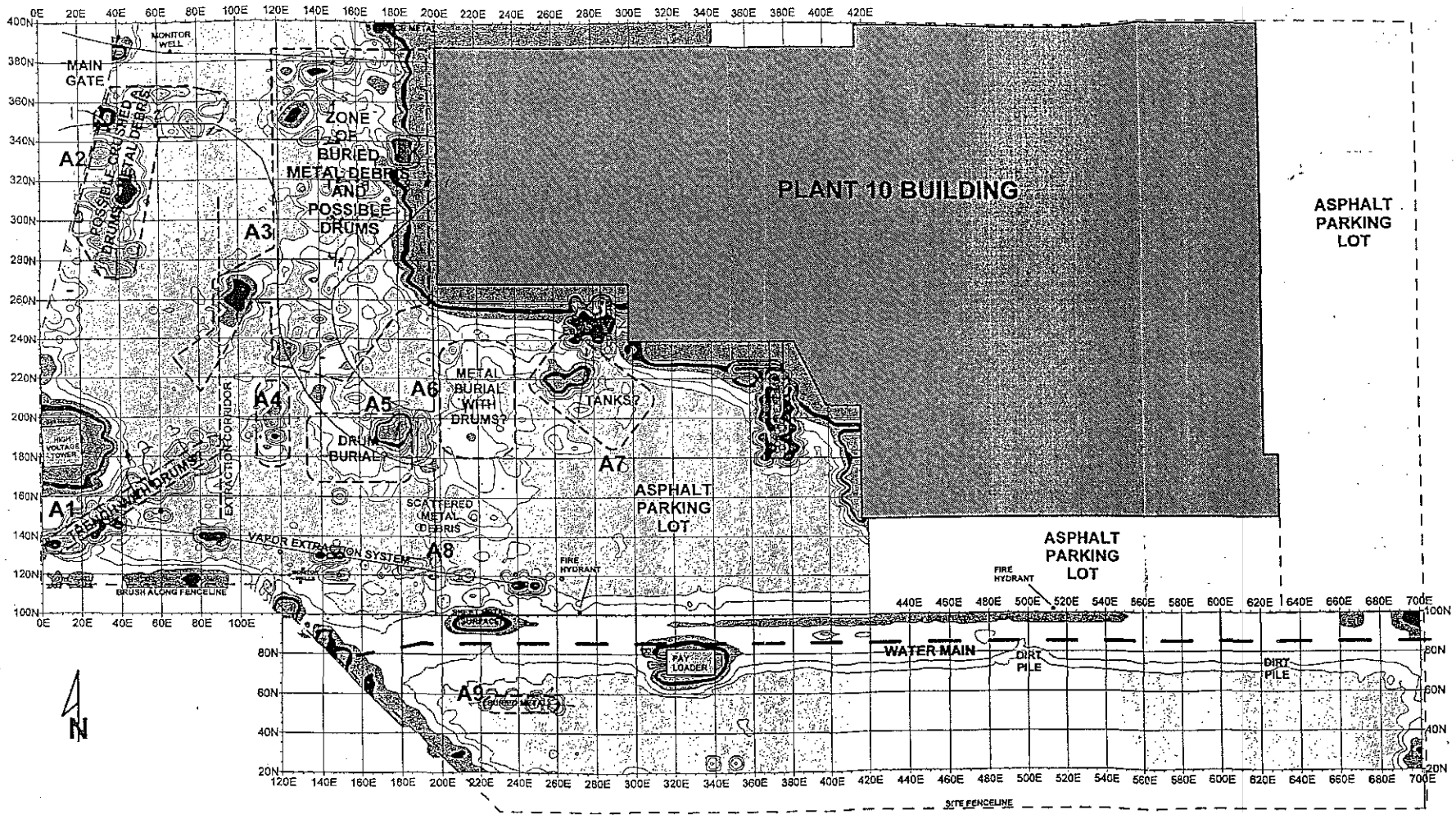
REV. NO.:	DRAWING DATE: 3/4/97	ACAD FILE: 0252GVOC

VOC CONCENTRATIONS IN GROUNDWATER

FEBRUARY 5, 6, & 26, 1997

CLIENT: ALLISON ENGINE COMPANY, INC. PLANT 10 SITE	PM: AG
LOCATION: 700 NORTH OLIN AVENUE INDIANAPOLIS, INDIANA	PE/RG:

DESIGNED:	DETAILED:	PROJECT NO.:	FIGURE:
KG	PJC	040020262	3



LEGEND

A1 MAJOR ANOMALY

-50 -30 -20 -10 -4 -2 2 4 10 20 30 50 80

EM31 INPHASE METAL (parts per thousand)

ALLISON ENGINE COMPANY PLANT 10 SITE, HOLT ROAD INDIANAPOLIS, INDIANA	MAP SCALE (in feet) 0 20 40 60 80 100 09-15-00 GEOSPHERE	EM31 INPHASE METAL CONTOUR MAP WITH GEOPHYSICAL SURVEY GRID

4-4

FIGURE 4

Table 1
Waste Characterization Sampling
TCLP VOC Analytical Results (mg/L) in Soils
Former Allison Plant 10
700 North Olin Avenue
Indianapolis, Indiana

Sample No.	Date Sampled	Lab Sample No.	Benzene	Carbon tetrachloride	Chlorobenzene	Chloroform	1,4-Dichloro-benzene	1,2-Dichloroethane	1,1-Dichloroethene	Methyl Ethyl Ketone	Tetrachloroethene	Trichloroethene	Vinyl chloride
A-3 COMP	10/06/2000	277730	<0.05	<0.05	<0.05	<0.10	<0.05	<0.05	<0.05	<0.50	<0.05	<0.05	<0.05
A-2/A-3	10/06/2000	277731	<0.05	<0.05	<0.05	<0.10	<0.05	<0.05	<0.05	<0.50	<0.05	0.064	<0.05
A-1 COMP	10/06/2000	277732	<0.05	<0.05	<0.05	<0.10	<0.05	<0.05	<0.05	<0.50	<0.05	<0.05	<0.05
A-4-9 COMP	10/06/2000	277733	<0.05	<0.05	<0.05	<0.10	<0.05	<0.05	<0.05	<0.50	<0.05	<0.05	<0.05
Soil Drums	09/25/2000	276247	<0.05	<0.05	<0.05	<0.10	<0.05	<0.05	<0.05	<0.50	<0.05	<0.05	<0.05
Maximum Concentration for the Toxicity Characteristic[1]			0.5	NA	100	6.0	7.5	0.5	0.7	200	0.7	0.5	0.2

TCLP = Toxicity Characteristic Leading Procedure
VOCs = Volatile Organic Compounds
mg/L = milligrams per liter
[1] Table 1 - Maximum Concentration of Contaminants for the Toxicity Characteristic

Table 2
Waste Characterization Sampling
TCLP RCRA Metal Analytical Results (mg/L) in Soils
Former Allison Plant 10
700 North Olin Avenue
Indianapolis, Indiana

Sample No.	Date Sampled	Lab Sample No.	TCLP - Arsenic	TCLP - Barium	TCLP - Cadmium	TCLP - Chromium	TCLP - Lead	TCLP - Mercury	TCLP - Selenium	TCLP - Silver
A-6 COMP	10/19/2000	278638	1.3	2.3	0.14	<0.010	2.3	<0.005	<0.005	<0.05
A-8 COMP	10/19/2000	278639	1.4	2.0	0.085	<0.010	1.2	<0.005	<0.005	<0.05
A-9 COMP	10/19/2000	278640	1.1	1.5	0.10	<0.010	3.6	<0.005	<0.005	<0.05
A-3 COMP	10/06/2000	277730	1.3	1.7	0.16	<0.010	3.4	<0.005	<0.005	<0.05
A-1 COMP	10/06/2000	277732	1.2	1.8	0.17	0.012	53	<0.005	<0.005	<0.05
A-2/A-3	10/06/2000	277731	1.0	3.8	1.8	0.016	130	<0.005	<0.005	<0.05
Maximum Concentration for the Toxicity Characteristic[1]			5.0	100.0	1.0	5.0	5.0	0.2	1.0	5.0

TCLP = Toxicity Characteristic Leading Procedure

mg/L = milligrams per liter

[1] Table 1 - Maximum Concentration of Contaminants for the Toxicity Characteristic

Table 3
Waste Characterization Sampling
VOC Analytical Results (ug/kg dw) in Soils
Former Allison Plant 10
700 North Olin Avenue
Indianapolis, Indiana

Sample No.	Date Sampled	Lab Sample No.	Benzene	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	1,1-Dichloroethene	cis-1,2-Dichloroethylene	trans-1,2-Dichloroethene	Ethylbenzene	Isopropylbenzene	p-Isopropyltoluene
A-4 COMP	10/19/2000	278635	<5.6	<5.6	<5.6	<5.6	<5.6	<5.6	<5.6	<5.6	<5.6	<5.6
A-5 COMP	10/19/2000	278636	<5.8	<5.8	<5.8	<5.8	<5.8	<5.8	<5.8	<5.8	<5.8	<5.8
A-7 COMP	10/19/2000	278637	<5.5	<5.5	<5.5	<5.5	<5.5	9.4	<5.5	<5.5	<5.5	<5.5
A-6 COMP	10/19/2000	278638	<5.5	<5.5	<5.5	<5.5	13	177	13	<5.5	<5.5	<5.5
A-8 COMP	10/19/2000	278639	<5.7	<5.7	<5.7	<5.7	<5.7	9.2	<5.7	<5.7	<5.7	<5.7
A-9 COMP	10/19/2000	278640	<5.9	<5.9	<5.9	<5.9	<5.9	<5.9	<5.9	<5.9	<5.9	<5.9
A-3 COMP	10/06/2000	277730	14	30	14	<5.0	<5.0	72	<5.0	<5.0	8.7	<5.0
A-2/A-3	10/06/2000	277731	<380	11,000	5,500	430	<380	19,000	<380	560	1,500	8,800
A-1 COMP	10/06/2000	277732	<5.0	<5.0	<5.0	<5.0	23	85	23	<5.0	<5.0	<5.0
A-4-9 COMP	10/06/2000	277733	<5.0	<5.0	<5.0	<5.0	<5.0	12	<5.0	<5.0	<5.0	<5.0
Tier II Non-Residential Cleanup Goals Surface Soil[1]			16,630	NA	NA	NA	150	1,000,000	NA	1,000,000	NA	NA
Tier II Non-Residential Cleanup Goals Subsurface Soil[1]			4,700	NA	NA	NA	80	102,490	NA	1,000,000	NA	NA

VOCs = Volatile Organic Compounds
Samples analyzed using EPA SW-846 Method 8260
ug/kg dw = micrograms per kilogram dry weight
NA = Not Applicable
[1] Indiana Department of Environmental Management Voluntary Remediation Program Resource Guide, Appendix F Tier II Cleanup Goals-Human Health Evaluation by Office of Environmental Response, July 1996
[2] Source: EPA Region 3 Risk-Based Concentration Table - October 1998 Update

Table 3
Waste Characterization Sampling
VOC Analytical Results (ug/kg dw) in Soils
Former Allison Plant 10
700 North Olin Avenue
Indianapolis, Indiana

Sample No.	Date Sampled	Lab Sample No.	Methylene chloride	Naphthalene	n-Propylbenzene	Tetrachloroethene	Toluene	Trichloroethene	1,2,4-Trimethyl-benzene	1,3,5-Trimethyl-benzene	Vinyl chloride	Xylenes, Total
A-4 COMP	10/19/2000	278635	32	<5.6	<5.6	<5.6	<5.6	30	<5.6	<5.6	<11	<5.6
A-5 COMP	10/19/2000	278636	<29	<5.8	<5.8	<5.8	<5.8	83	<5.8	<5.8	<12	<5.8
A-7 COMP	10/19/2000	278637	30	<5.5	<5.5	<5.5	<5.5	30	<5.5	<5.5	<11	<5.5
A-6 COMP	10/19/2000	278638	<28	<5.5	<5.5	<5.5	<5.5	9.7	<5.5	<5.5	14	<5.5
A-8 COMP	10/19/2000	278639	47	<5.7	<5.7	<5.7	<5.7	41	<5.7	<5.7	<11	<5.7
A-9 COMP	10/19/2000	278640	<30	<5.9	<5.9	<5.9	<5.9	6.2	<5.9	<5.9	<12	<5.9
A-3 COMP	10/06/2000	277730	40	12	20	<5.0	130	32	160	45	<10	31
A-2/A-3	10/06/2000	277731	<1,900	9,900	3,500	160	<380	9,900	32,000	12,000	<760	4,900
A-1 COMP	10/06/2000	277732	82	<5.0	<5.0	<5.0	<5.0	170	<5.0	<5.0	<10	<5.0
A-4-9 COMP	10/06/2000	277733	<25	<5.0	<5.0	<5.0	<5.0	5.5	<5.0	<5.0	<10	<5.0
Tier II Non-Residential Cleanup Goals Surface Soil[1]			NA	10,000,000	20,000,000[2]	101,230	1,000,000	24,790	100,000,000[2]	100,000,000[2]	20	1,000,000
Tier II Non-Residential Cleanup Goals Subsurface Soil[1]			NA	10,000,000	20,000,000[2]	8,010	1,000,000	25,730	100,000,000[2]	100,000,000[2]	130	1,000,000

VOCs = Volatile Organic Compounds
Samples analyzed using EPA SW-846 Method 8260
ug/kg dw = micrograms per kilogram dry weight
NA = Not Applicable
[1] Indiana Department of Environmental Management Voluntary Remediation Program Resource Guide, Appendix F Tier II Cleanup Goals-Human Health Evaluation by Office of Environmental Response, July 1996
[2] Source: EPA Region 3 Risk-Based Concentration Table - October 1998 Update

Table 4
Waste Characterization Sampling
Total RCRA Metal Analytical Results (mg/kg) in Soils
Former Allison Plant 10
700 North Olin Avenue
Indianapolis, Indiana

Sample No.	Date Sampled	Lab Sample No.	Total Arsenic	Total Barium	Total Cadmium	Total Chromium	Total Lead	Total Mercury	Total Selenium	Total Silver
A-6 COMP	10/19/2000	278638	<28	321	7.1	38	1,440	<0.11	<11	<1.1
A-8 COMP	10/19/2000	278639	<28	205	5.5	28	786	0.16	<11	1.6
A-9 COMP	10/19/2000	278640	<30	356	3.9	42	1,540	<0.12	<12	1.5
A-3 COMP	10/06/2000	277730	<25	640	16	65	2,300	0.13	<10	<1.0
A-1 COMP	10/06/2000	277732	<25	210	2.6	24	940	<0.10	<10	<1.0
A-2/A-3	10/06/2000	277731	<25	2,300	88	130	11,000	0.22	24	<1.0
A-6-8-9	10/06/2000	277734	<25	400	10	44	1,900	<0.10	<10	<1.0
A4 STOCKPILE	09/25/2000	276242	<25	140	3.7	17	600	<0.10	<10	<1.0
A4 BOTTOM 3'	09/25/2000	276243	<25	47	<0.50	8.8	28	<0.10	<10	<1.0
A5 STOCKPILE	09/25/2000	276244	<25	350	6.7	44	2,200	<0.10	<10	<1.0
A5 BOTTOM 2.5'	09/25/2000	276244	<25	58	<0.50	10	96	<0.10	<10	<1.0
A7 STOCKPILE	09/25/2000	276246	<25	86	<0.50	10	17	<0.10	<10	<1.0
Tier II Non-Residential Cleanup Goals Surface Soil[1]			612.0	10,000.0	1,020.0	10,000.0	1,000 [3]	122.4	10,000.0	10,000.0
Tier II Non-Residential Cleanup Goals Subsurface Soil[1]			438.0	10,000.0	730.0	7,300.0	1,000 [3]	87.6	7,300.0	7,300.0
Common Background Ranges [2]			1.0 - 40	100 - 3,500	0.01 - 70	5.0 - 3000	2 - 200	0.01 - 0.08	0.1 - 2.0	0.1 - 50

Samples analyzed using EPA Method Series 6000/7000

mg/kg = milligrams per kilogram

[1] Indiana Department of Environmental Management Voluntary Remediation Program Resource Guide, Appendix F Tier II Cleanup Goals-Human Health Evaluation by Office of Environmental Response, July 1996

[2] Source: James Dragun. The Soil Chemistry of Hazardous Materials Table 3.1 Native Soil Concentration of Various Elements: p.229, 1988

[3] IDEM VRP Interoffice Memo dated on January 26, 1998